

**BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN**

Joint Application of Wisconsin Power and Light
Company and Wisconsin Electric Power Company
For Certificate of Authority for Edgewater Generating
Station Unit 5 NOx Reduction Project

Docket No. 05-CE-137

**CUB AND CLEAN WISCONSIN'S
DISCOVERY QUESTIONS TO WISCONSIN POWER AND LIGHT COMPANY
PURSUANT TO THE COMMISSION'S NOTICE OF TECHNICAL CONFERENCE**

To: Michael Greiveldinger
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PLEASE TAKE NOTICE that the Citizens Utility Board of Wisconsin ("CUB") and Clean Wisconsin ("CW") require Wisconsin Power and Light Company ("WPL") to produce the requested documents and answer the accompanying interrogatories in accordance with Wis. Stat. §§ 804.08, 804.09, Wis. Admin. Code § PSC 2.24(1), and the Commission's Notice of Technical Conference mailed March 27, 2009. Please note that the Definitions and Instructions accompanying CUB and CW's first discovery to WPL apply to these requests. I am authorized to state that Sierra Club has reviewed the public versions of these questions and concurs that they should be addressed at the Technical Conference.

INTERROGATORIES

- CUB-CW/Inter-1 In response to Staff's Data Request 3.22, attachment A provides a table of EGEAS results for 18 EGEAS runs. Please describe the differences in assumptions for the EGEAS analyses provided in response to request 3.22 and the EGEAS analyses provided in response to Staff's Data Request 1.16.
- CUB-CW/Inter-2 On April 2, 2009, the Company provided a confidential CD containing the electronic input and output files for EGEAS runs for Data Requests 1.16 and 3.22. The CD response to Data Request 3.22 contains the files for 45 EGEAS runs, compared to the 18 EGEAS results in Attachment A to that response. Confidential Exhibit A¹ attached to these questions provides a summary of the 45 EGEAS runs on the CD.
- a) The last column of Exhibit A attempts to identify which of the 45 runs were used in Attachment A to the response. Please confirm that the proper EGEAS run has been identified for each of the 18 runs in Attachment A.
 - b) Many other runs in Exhibit A appear to be sensitivity runs that have letters A through H in the file names. Please explain the differences in assumptions for these EGEAS runs.
 - c) Please explain why the same scenario (i.e., A through H) was not used.
- CUB-CW/Inter-3 Did the Company perform any other analyses, besides those referenced above, during the last three years of the economic benefits associated with the continued operation of Edgewater 5? If so, please provide these analyses, including all work papers and assumptions.
- CUB-CW/Inter-4 Did the Company perform any other analyses, besides those referenced above, during the last three years of the economic benefits associated with the continued operation of Edgewater 3 and/or Edgewater 4? If so, please provide these analyses, including all work papers and assumptions.
- CUB-CW/Inter-5 Are the Company's share of the carrying charges for the proposed SCR included in the EGEAS runs? If so, please indicate where in the input files this data is entered, and how the values entered into EGEAS were calculated.
- CUB-CW/Inter-6 Confidential Exhibit B attached to these questions contains excerpts from the EGEAS inputs for emission allowances.

¹ The exhibits are based on confidential information provided by the Company. The confidential exhibits referenced in this submission are being provided to the Company and the Company has confirmed that it will forward the exhibits to all parties with which it has a confidentiality agreement. Copies of the confidential exhibits will be provided to Commission staff at the Technical Conference to be held April 16, 2009.

- a) Please identify in a table format the allowance prices assumed for each pollutant for each year from 2008 through 2037.
- b) Please provide a detailed description of the basis of each price scenario for each allowance.
- c) If the allowance prices assume or are based upon any particular environmental regulations or legislation, please describe the assumed regulations or legislation.

CUB-CW/Inter-7 In EGEAS runs performed by the Company, please explain in detail how EGEAS treats emission allowance costs. Specifically, are these costs added to fuel and variable O&M costs for the purposes of determining whether or not a generating unit is dispatched? Or, are the units dispatched in EGEAS based only on fuel and variable O&M and allowance costs added after the dispatch is established?

CUB-CW/Inter-8 For each of the EGEAS runs provided on April 2, 2009, there appear to be at least one output files (*.OUT or *.rtf). Confidential Exhibit C attached to these questions provides a summary of the net present value (NPV) of the total EGEAS costs.

- a) Please indicate the column in this summary where emission allowance costs are contained.
- b) Please indicate the page numbers in either output file which show the calculations that include emission allowance costs.

CUB-CW/Inter-9 Confidential Exhibit D attached to these questions shows an excerpt from a report output file for the annual system emission report.

- a) Please explain in detail how the allowance costs and allowance credits are calculated, and provide a sample calculation for one year.
- b) Please explain how these costs and credits are included in the NPV costs as shown in Exhibit A.

CUB-CW/Inter-10 Please provide actual annual MWH output, fuel costs, O&M costs, and capital expenditures for Edgewater 5 from 2003 to 2008.

CUB-CW/Inter-11 Please provide annual delivered fuel costs for Edgewater 5, in \$ per ton, and the source of this coal for the years 2003 to 2008.

CUB-CW/Inter-12 Please provide the Company's projections for annual fixed and variable O&M and capital expenditures for Edgewater 5 for the years 2008 through 2037. Also, please show how these projections are converted to the values input into EGEAS, including but not limited to the initial value and the trajectory assumed. Include any expected major capital expenditures for future environmental upgrades beyond the SCR proposed in this proceeding, and the basis for them.

CUB-CW/Inter-13 The EGEAS runs provided by the Company contain projections of future coal prices.

- a) Are there different projections for different units, or all units assumed to have the same price for coal?
- b) Did the Company develop base, high, and low coal price scenarios, or did the Company utilize a single base case price forecast?
- c) Please provide a table showing all annual coal prices assumed in EGEAS from 2008 to 2037.
- d) Please provide the basis for these coal price forecasts, including all underlying assumptions as well as all other recent price forecasts the Company has reviewed that identify future prices for comparable quality coal.

CUB-CW/Inter-14 The EGEAS runs provided by the Company contain projections of future natural gas prices.

- a) Are there different projections for different units, or all or units assumed to have the same price for natural gas?
- b) Did the Company develop base, high, and low natural gas price scenarios, or did the Company utilize a single base case price forecast?
- c) Please provide a table showing all annual natural gas prices assumed in EGEAS from 2008 to 2037.
- d) Please provide the basis for these natural gas price forecasts, including all underlying assumptions as well as all other recent price forecasts or market forward contracts or future prices for natural gas that the Company has reviewed.

CUB-CW/Inter-15 The EGEAS runs provided by the Company contain projections of peak load and annual energy requirements.

- a) Please provide actual peak loads and annual energy requirements for 2003 through 2008.
- b) Please provide the basis for the forecasts of peak load and annual energy requirements assumed in the EGEAS runs.

CUB-CW/Inter-16 Do the Company's peak load and energy forecasts include the impacts of energy efficiency, conservation, and demand response? Please provide a detailed projection of the annual impact of energy efficiency, conservation, and demand response on the Company's forecasts both at current energy efficiency levels and at the 2% level included in the Global Warming Task Force Final Report.

CUB-CW/Inter-17 Please provide the assumptions made for reserve margin in the Company's EGEAS runs, and the basis for them.

CUB-CW/Inter-18 In the EGEAS runs made by the Company, several different types of generating capacity are made available as planning alternatives for

EGEAS to evaluate and select as part of the preferred plan. Please provide the year of first availability, capital costs, fixed and variable O&M costs, and operating characteristics (such as heat rate forced outage rate, etc.) and the basis for these assumptions. Include any assumptions made about short term and long term purchases.

- CUB-CW/Inter-19 Do the generation build-out plans in each of the EGEAS runs provided by the Company on April 2nd comply with Wisconsin's current Renewable Portfolio Standards over the 2008 to 2037 planning horizon? Do any of the runs comply with the projected Renewable Portfolio Standard of 25% by 2025 as contained in the Global Warming Task Force Final Report? If so, please provide the output or calculations that demonstrate compliance. If not, please indicate what additional actions would be required to achieve compliance.
- CUB-CW/Inter-20 In the EGEAS runs made by the Company, was the Edgewater 5 unit with the environmental upgrade made an option or planning alternative for EGEAS to select (as EGEAS does with other planning alternatives), or was it assumed to be installed?
- CUB-CW/Inter-21 In the EGEAS runs made by the Company, estimates are made for fixed and variable O&M costs for existing generating units. Please identify the basis for those projections.
- CUB-CW/Inter-22 Please provide the calculations of the annual carrying charges used for upgrades to Edgewater 5 and all other types of generation included in the EGEAS runs, including all assumptions and inputs, and the basis for them.
- CUB-CW/Inter-23 Please describe any differences in assumptions between the Company's latest Integrated Resource Plan (IRP) and the EGEAS analyses performed in this proceeding.
- CUB-CW/Inter-24 Please identify the discount rate used in the EGEAS analyses and explain why it is an appropriate rate.

REQUESTS FOR PRODUCTION

- CUB-CW/RFP-6 Please provide a copy of the Company's latest IRP.
- CUB-CW/RFP-7 Provide all of the documents you were asked to identify and provide in response to each of the interrogatories above.
- CUB-CW/RFP-8 Please provide all joint ownership agreements between WEPCO and WPL for the Edgewater 5 unit.

Dated this 9th day of April, 2009.

Respectfully submitted,

CULLEN WESTON PINES & BACH LLP

/s/ Kira E. Loehr

By: _____

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